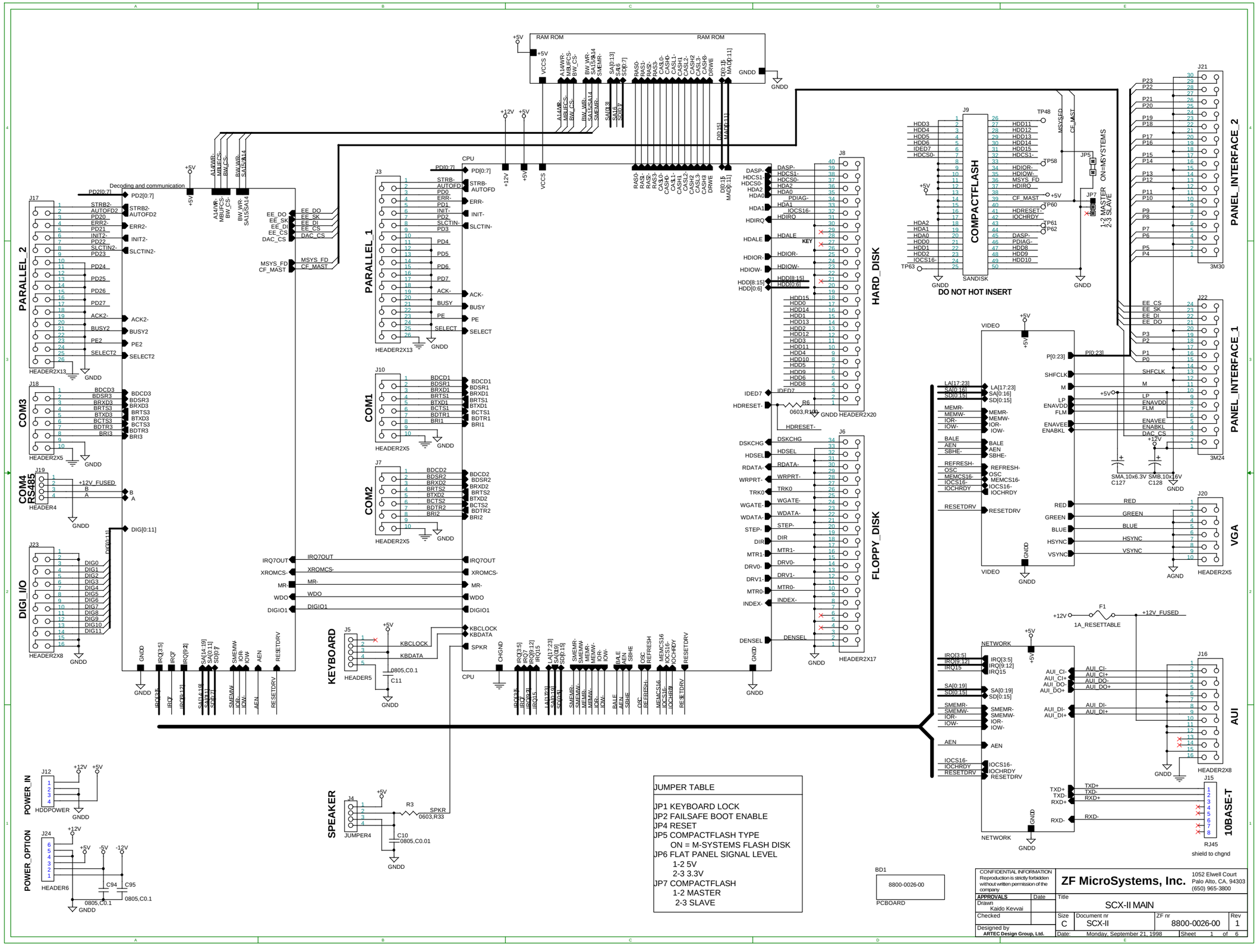
RAM ROM
CPU
PARALLEL_2
PARALLEL_1
COM3
COM4 RS485
COM1
COM2
DIGI_I/O
KEYBOARD
SPEAKER
POWER_IN
POWER_OPTION
HARD_DISK
FLOPPY_DISK
COMPACTFLASH
SANDISK
DO NOT HOT INSERT
PANEL_INTERFACE_2
PANEL_INTERFACE_1
VGA
AUI
10BASE-T
VIDEO
NETWORK
1-2 MASTER
2-3 SLAVE
ON=MSYSTEMS
JUMPER TABLE
JP1 KEYBOARD LOCK
JP2 FAILSAFE BOOT ENABLE
JP4 RESET
JP5 COMPACTFLASH TYPE
ON = M-SYSTEMS FLASH DISK
JP6 FLAT PANEL SIGNAL LEVEL
1-2 5V
2-3 3.3V
JP7 COMPACTFLASH
1-2 MASTER
2-3 SLAVE
BD1
8800-0026-00
PCBOARD
CONFIDENTIAL INFORMATION
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ZF MicroSystems, Inc.
1052 Elwell Court
Palo Alto, CA, 94303
(650) 965-3800
APPROVALS
Drawn Kaido Kevvai
Checked
Designed by ARTEC Design Group, Ltd.
Title SCX-II MAIN
Size C
Document nr SCX-II
ZF nr 8800-0026-00
Rev 1
Date: Monday, September 21, 1998
Sheet 1 of 6

PARALLEL_1

STRB-
AUTOFD
INIT-
SLCTIN-

ERR-
ACK-
BUSY
PE
SELECT

PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7

SPEAKER

KEYBOARD

KBLOCK
SELECT
PE
BUSY
ACK-
PD7
PD6
PD5
PD4
PD3
SLCTIN-
PD2
INIT-
PD1
ERR-

PD0
AUTOFD
STRB-

COM2

BDCD2
BDSR2
BRXD2
BRTS2
BTXD2
BCTS2
BDTR2
BRI2

COM1

BDCD1
BDSR1
BRXD1
BRTS1
BTXD1
BCTS1
BDTR1
BRI1

POWER_IN

GND GND1 GND2 GND3 GND4 GND5 GND6 GND7 GND8

SD14
MASTER-
SA4
TC
SD15
SA3
BALE
SA2
SA1
OSC
SA0
HISPEED
SPKR
KBDATA
KBCLOCK

DCD2
DSR2
RXD2
TXD2
CTS2
DTR2
RI2
DCD1
DSR1
RXD1
RTS1
TXD1

J1

PC104-C/D-S

D19 C19 D18 C18 D17 C17 D16 C16 D15 C15 D14 C14 D13 C13 D12 C12 D11 C11 D10 C10 D9 C9 D8 C8 D7 C7 D6 C6 D5 C5 D4 C4 D3 C3 D2 C2 D1 C1 D0 C0

40 20 39 19 38 18 37 17 36 16 35 15 34 14 33 13 32 12 31 11 30 10 29 9 28 8 27 7 26 6 25 5 24 4 23 3 22 2 21 1

SA0 OSC SA1 SA2 KEY IRQ9 SA3 SD5 TC SA4 MASTER SD14 -DACK2 SA5 SD13 IRQ6 SA6 DRQ7 SD12 IRQ5 SA7 -DACK7 SD11 IRQ4 SA8 DRQ6 SD10 IRQ3 SA9 -DACK6 SD9 IRQ7OUT SA10 DRQ5 SYSCLK SA11 -DACK5 MEMW- REFRESH- SA12 DRQ0 MEMR- SA13 -DACK0 SA14 -DACK1 SA15 IRQ14 SA16 IRQ15 SA17 -DACK3 SA18 IRQ12 SA19 IRQ11 IOR- SA17 IRQ11 IOW- SA18 IRQ10 SA19 IRQ9 IOCS16- SMEMR- SA19 SMEMW IOCHRDY AEN MEMCS16- SBHE- KEYPIN IOCHRDY

SD0 SD1 SD2 SD3 SD4 IRQ9 SD5 SD6 RESETDRV SD7 IOCHCHK

+5V +5V +12V -12V -5V +5V

-DACK2 SA5 SD13 IRQ6 SA6 DRQ7 SD12 IRQ5 SA7 -DACK7 SD11 IRQ4 SA8 DRQ6 SD10 IRQ3 SA9 -DACK6 SD9 IRQ7OUT SA10 DRQ5 SYSCLK SA11 -DACK5 MEMW- REFRESH- SA12 DRQ0 MEMR- SA13 -DACK0 SA14 -DACK1 SA15 IRQ14 SA16 IRQ15 SA17 -DACK3 SA18 IRQ12 SA19 IRQ11 IOR- SA17 IRQ11 IOW- SA18 IRQ10 SA19 IRQ9 IOCS16- SMEMR- SA19 SMEMW IOCHRDY AEN MEMCS16- SBHE- KEYPIN IOCHRDY SD0

0WS-
SD1
SD2
DRQ2OUT
DRQ2
SD3
SD4
IRQ9
SD5
SD6
RESETDRV
SD7
IOCHCHK-
WDO
DIGIO1
MR-
PFO
PFI

VBATT
DSKCHG
HDSEL
RDATA-
WRPRT-
TRK0
WGATE-
WDATA-
STEP-
DIR

MTR1-

DRV0-

DRV1-

MTR0-
INDEX-
DENSEL
DASP-
HDCS1-
HDCS0-
HDA2
HDA0
HDA1
IOCS16-
HDIRQ
HDALE
HDIOR-

RN4

10KX9

SA0 SA1 SA2 SA3 SA4 SA5 SA6 SA7 SA8 — C

SA9 SA10 SA11 SA12 SA13 SA14 SA15 SA16 SA17

SA18

SA19

SD0 SD1 SD2 SD3 SD4 SD5 SD6 SD7

SD8 SD9 SD10 SD11 SD12 SD13 SD14 SD15

LA[17:23]
SA[0:19]
SD[0:15]
IRQ[3:5]
IRQ7
IRQ[9:12]
IRQ15
IRQ7OUT
AEN
BALE
IOCHRDY
IOR-
IOW-
MEMCS16-
MEMR-
MEMW-
OSC
REFRESH-
RESETDRV
SBHE-
SMEMR-
SMEMW-
XROMCS-
DIGIO1
WDO
MR-

3.6V
850mA

GND

RESET

DSKCHG
RDATA-
WRPRT-
TRK0
INDEX-
HDSEL
WGATE-
WDATA-
STEP-
DIR
MTR1-
DRV0-
DRV1-
MTR0-
DENSEL

FLOPPY_DISK

DASP-
HDCS1-
HDCS0-
HDA2
HDA0
HDA1
IOCS16-
HDIRQ
HDALE
HDIOR-
HDIOW-

HDD[0:6]
IDED7
HDD[8:15]
HDRESET-

EIDE_INTERFACE

CASL0-
CASH0-
CASL1-
CASH1-
CASL2-
CASH2-
CASL3-
CASH3-

DRWE-

RAS0-
RAS1-
RAS2-
RAS3-

D[0:15]

MAD[0:11]

DRAM

CTS1
DTR1
RI1
MAD11
RAS3-
RAS2-
RAS1-
RAS0-

D5
D7
D4
D6
DRWE
D8

D5
MAD10
MAD9
D2
D4
MAD7
MAD6
D1
D3
MAD5
MAD4
D0
D2
MAD3
MAD2
D9

D1
MAD1
MAD0
D8
D0
CASH3-
CASH2-
CASL3-
CASH1-
CASL2-
CASH0
CASL1-
CASH1-
CASL0
BDIS
XROMCS-
LEDOUT-

HDRESET-
IDED7
HDD8
HDD9
HDD6
HDD5
HDD10
HDD4
HDD11
HDD3
HDD12
HDD2
HDD13
HDD1
HDD14
HDD0
HDD15
HDIOW

JP2
BDIS-

FAILSAFE BOOT ENABLE

HDD LED

POWER ON

RESETDRV

VCCS

+5V VCC VCC1 VCC2 VCC3 VCC4

+12V +5V +3.3V +5V

3.3V 5V
DRAM
USE R57 FOR 3.3V OR R58
FOR 5V DRAMS

GNDD

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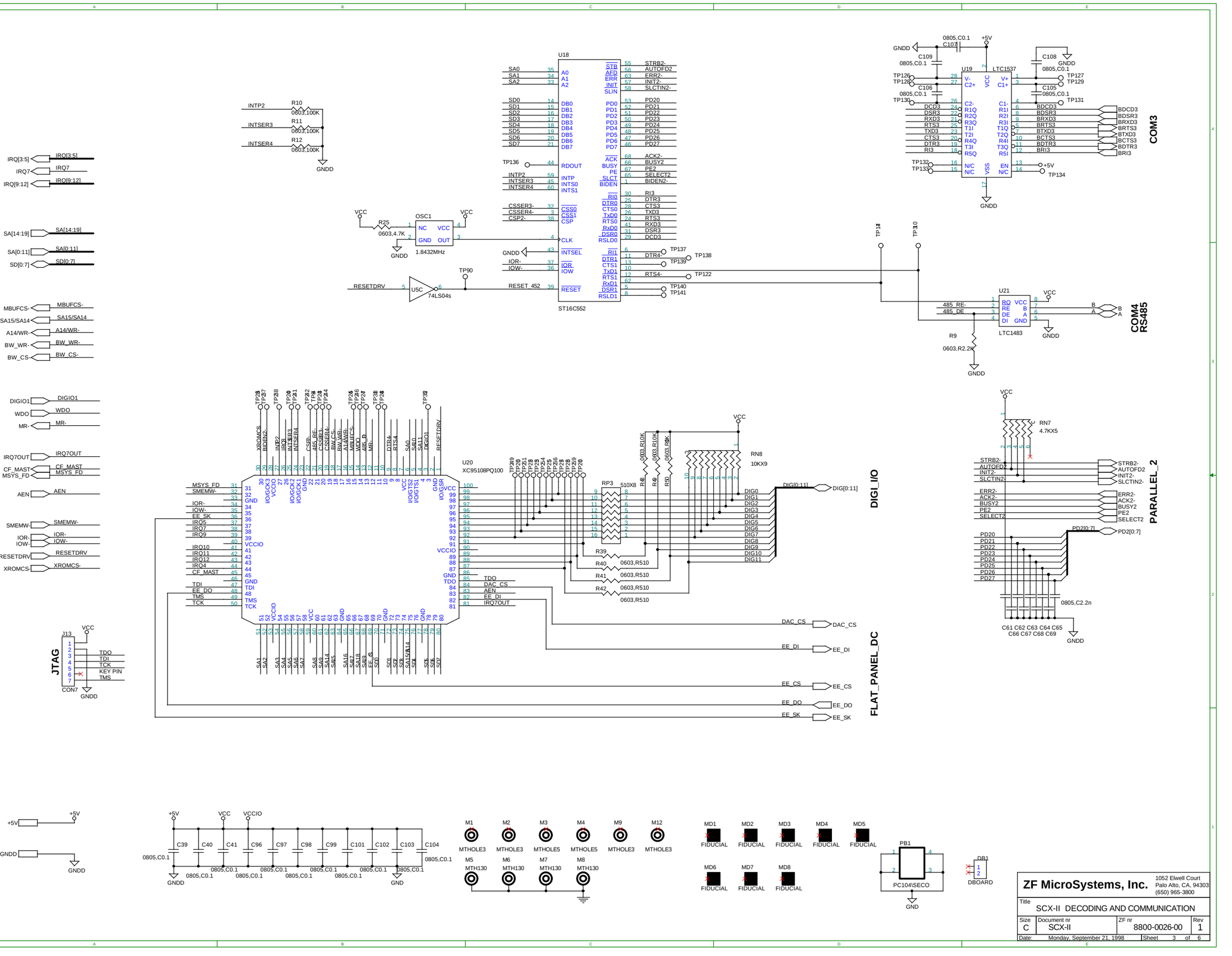
Title			
SCX-II CPU			
Size: C	Document nr: SCX-II	ZF nr: 8800-0026-00	Rev: 1
Date: Monday, September 21, 1998		Sheet 2 of 6	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U18
U20
XC95108PQ100
RP3
510X8
RN8
10KX9
RN7
4.7KX5
OSC1
1.8432MHz
U5C
74LS04s
U19
LTC1537
U21
LTC1483
COM3
COM4
RS485
PARALLEL_2
DIGI_I/O
FLAT_PANEL_DC
JTAG
J13
CON7
PC104\SECO
DBOARD
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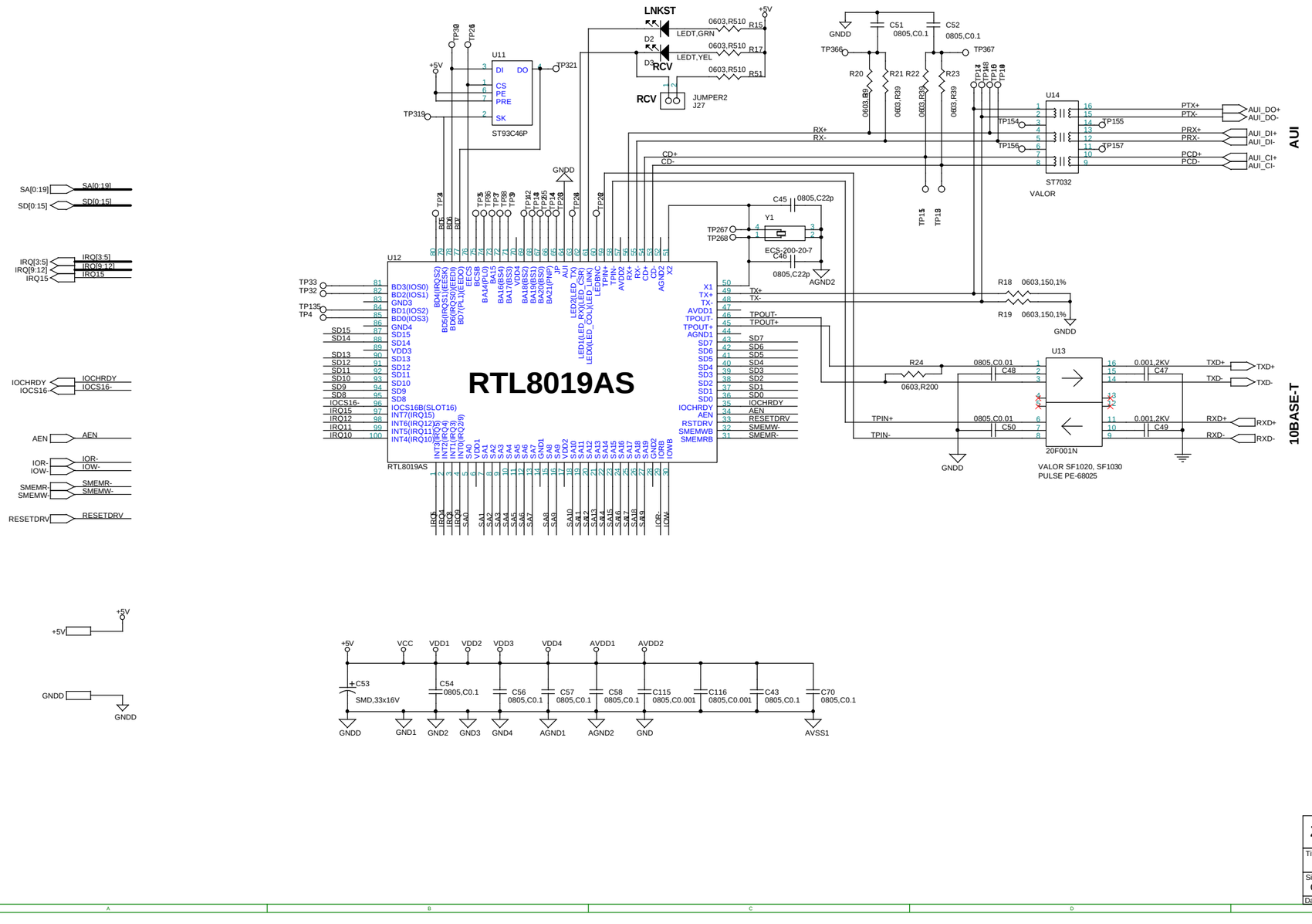
SCX-II DECODING AND COMMUNICATION
Size C
Document nr SCX-II
ZF nr 8800-0026-00
Rev 1
Date: Monday, September 21, 1998
Sheet 3 of 6



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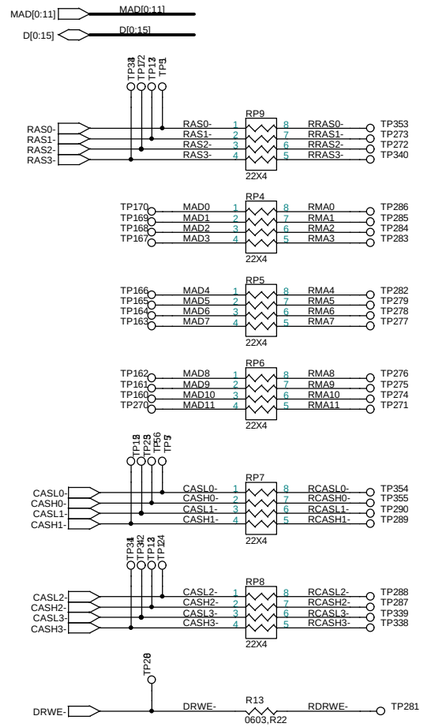
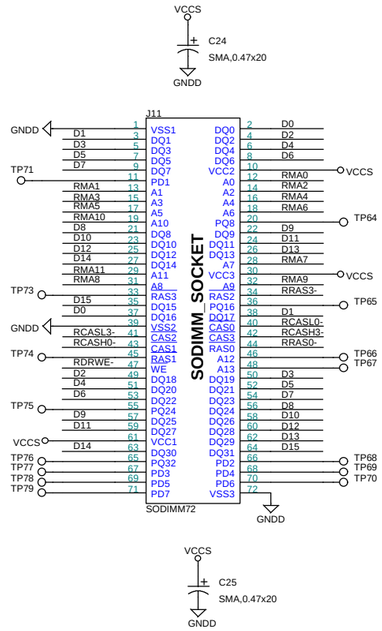
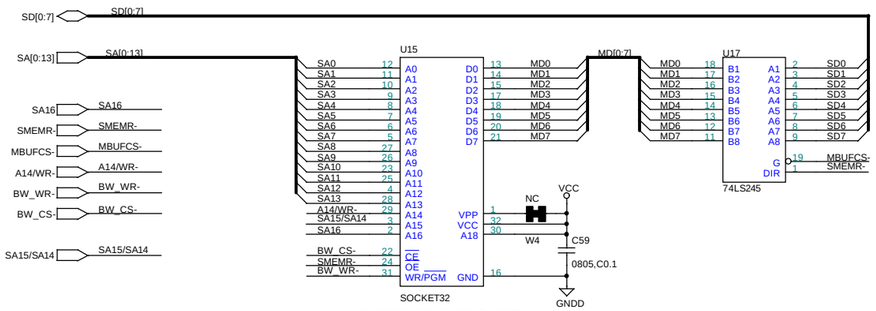
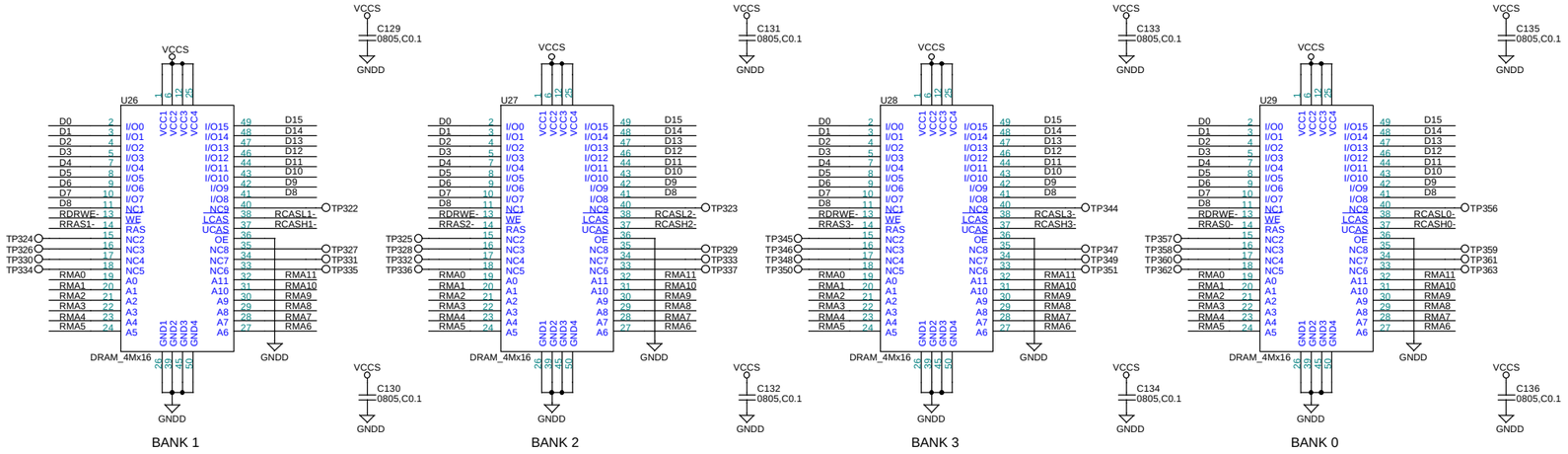
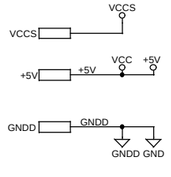
Title	SCX-II NETWORK	
Size C	Document nr SCX-II	ZF nr 8800-0026-00 / Rev 1
Date: Monday, September 21, 1998	Sheet 4 of 6	











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Title: SCX-II RAM AND ROM			
Size: C	Document nr: SCX-II	ZF nr: 8800-0026-00	Rev: 1
Date: Monday, September 21, 1998	Sheet 5 of 6		

65545
Flat Panel VGA Controller

DRAM "A" Display Memory Lower 512KB

DRAM "B" Display Memory Upper 512KB

DRAM "C" Frame Buffer or 24-Bit PC-Video Interface

Panel Interface Group

Bus Interface Group

Clock Group

DAC Group

Configuration Pins
2X# = 0 2X LCLK
OS# = 0 External Oscillator (1=Xtal)
AD# = 0 ENABKL & ACTI are A26,A27
TS# = 0 Enable Clock Test Mode
LV# = 0 Input Threshold Level Control

EXT OSC
ISA MODE
FLAT PANEL DISPLAY SIGNAL LEVEL
3.3V 5V

DRAM A
DRAM B
OPTIONAL

PANEL_INTERFACE
VGA

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Title			
SCX-II VGA			
Size: C	Document nr: SCX-II	ZF nr: 8800-0026-00	Rev: 1
Date: Monday, September 21, 1998	Sheet 6 of 6		